

STAFF'S STRAWMAN POLICY PROPOSAL

LPSC DOCKET NO. R-28271, SUBDOCKET B

I. Background

The Louisiana Public Service Commission ("LPSC") first considered implementing a Renewable Portfolio Standard ("RPS") in 2005. J. Kennedy and Associates, Inc. ("Kennedy") was hired at that time to assist Staff in conducting a study of the feasibility of implementing an RPS requirement in Louisiana. The 2005 report concluded that due to the lack of availability of renewable resources in Louisiana and the current Energy Production capabilities, an RPS would not be feasible at that time. Instead, the Commission decided to implement a voluntary Green Pricing Tariff pilot program. At the request of the Commission, Entergy Gulf States Louisiana, L.L.C. ("EGS-LA") agreed to be the first to implement a Green Pricing Tariff pilot program, which it named Geaux Green. The program was designed to offer customers the opportunity to buy 100 kWh blocks of renewable energy that would be used to serve the customers' load. The cost of each block was set at \$2.25 per kWh and the customers could chose to buy as many blocks as they wanted. Two primary renewable energy suppliers have been relied on, Agrilectric Power and Lacassine, although Lacassine's deliveries have been limited throughout the program. Agrilectric is a rice hull renewable energy generator located in Lake Charles, Louisiana, and Lacassine is a bagasse fired-generator, also located in Lake Charles. In 2008, Entergy Louisiana L.L.C ("ELL") began offering the Geaux Green program to its customers. However, despite a very creative marketing program, both Companies have had limited success in attracting customers.

At the time that the original study was conducted in 2005, twenty (20) states had implemented RPS programs. In 2010, the number increased to twenty-nine (29) states plus the District of Columbia. Since 2005, interest in renewable resources and concern about global warming has taken center stage in many countries throughout the world. In the United States, both houses of Congress drafted comprehensive national energy policy bills in 2009. While the national debate concerning whether global warming is a man-made phenomenon continues, there are additional reasons that explain the growing interest in

renewable resources. These reasons include the desire to achieve a greater level of energy security, the ability to diversify energy resources, the opportunity to site additional generation resources and to source additional fuels within the states, and the possibility that promoting renewable resources may lead to more jobs being created than lost.

Another issue that has been a concern since 2005 is the volatility of natural gas prices. Since 2005, natural gas prices have risen as high as \$14/MBTU and have fallen below \$4/MBTU. However, it is possible that with the additional discoveries of natural gas in the country such as the large Haynesville Shale deposit in Northwest Louisiana, the chance of continuing to experience extreme spikes in natural gas prices has been reduced. Another significant event that has occurred since 2005 is the fact that the United States experienced a major economic downturn that began in late 2007, which the country is continuing to recover from today.

Against that backdrop, the LPSC once again retained Kennedy in 2009 to assist Staff in conducting an evaluation of whether it is appropriate to implement an RPS in Louisiana. Kennedy, together with Staff, created a task force to evaluate the opportunity for developing additional renewable resources in Louisiana and to evaluate the cost of those resources.¹ A series of meetings were held from May 2009 through November 2009 with robust participation from many interests.

The following is a full list of the intervenors and interested parties in his docket: AcciLouisiana, Agrilectric Power Partners, ALEC and ALEC Cooperatives, the Alliance for Affordable Energy, American Developments, LLC, American Sugar Cane League, Ann Reiley Jones, Boise Cascade, LLC, Cabot Corporation, Cleco, DeGussa, Environmental Market Services, GT Energy, LLC, Father Bill Crumbly, Free Flower Power, Jean P. Bouffard, Louisiana Department of Agriculture and Forestry, Louisiana Department of Natural Resources, Louisiana Energy Users Group, Louisiana Farm Bureau Federation, Louisiana Generating, Louisiana Geothermal, Louisiana Propane Gas Association, Louisiana Pulp and Paper Association, Louisiana State University Ag Center, Louisiana State University Center for Energy Studies, Marathon Oil Company, Occidental Chemical

¹ The task force was originally intended to be composed of a small group of technical experts, but many parties expressed interest and all parties were ultimately included. This led to a lengthy and thorough process.

Corporation, ORMAT, Inc., Roy O. Martin, the Sierra Club, SLEMCO, Soterra, LLC, SWEPCO, Sun Energy Group, LLC, Suniva, Tangipahoa Future Network, Tembec USA, LLC, Texas Natural Resources, The Kerrigan Company, The Louisiana Forestry Association, The Times-Picayune, the U.S. Department of Energy, and Weyerhaeuser Company. Although not official interested parties or intervenors, representative of other agencies such as the Louisiana Department of Economic Development and the Louisiana Department of Environmental Quality have participated in task force meetings and received documentation. We have also obtained information from Wind Energy Systems Technology.

With the assistance of task force members as well as other representatives from various industries in Louisiana, data and models were developed to estimate the cost of relying on renewable resources in Louisiana. For purposes of the analysis, the House of Representatives' Waxman-Markey RPS legislation was used as the foundation for this study. The results of preliminary analyses were presented to task force members at meetings held on August 25, 2009 and November 13, and Staff's Preliminary Task Force Report and Request for Comments ("Preliminary Task Force Report") was issued on December 15, 2009, and supplemented on December 18, 2009. Parties submitted comments during this process that improved the data and modeling. All models and data were distributed to the parties throughout the process and certain parties performed their own analyses with the models. The parties had their latest opportunity to offer comments on January 15, 2010, in which they commented on the Preliminary Task Force Report.

The Preliminary Task Force Report includes the following sections:

- I. Introduction
- II. Potential Federal Legislation – this section presents the relevant features of the Waxman-Markey legislation related to renewable resource requirements;
- III. Technical Resource Assessment- this section assesses the technical and cost potential of each renewable resource type that we evaluated;
- IV. Economic Evaluation – this section reviews the results of the economic evaluation of each renewable resource;
- V. Policy Alternatives - this section provides a broad outline of Staff's potential alternative policy recommendations

VI. Conclusions

The “Policy Alternatives” section laid the foundation for Staff’s RPS proposal that is included in this report. The “Policy Alternatives” section laid out the potential options for implementing an RPS. This report outlines the major issues raised in Staff’s December 19 report and presents Staff’s initial recommendations for an RPS. Based on comments of the parties and Staff’s own analysis, the key questions that will be addressed below include:

1. Should a Renewable Portfolio Standard (“RPS”) be adopted?
2. What desirable results should the RPS attempt to achieve?
3. What renewable resources should be eligible?
4. Should renewable energy credits be used?
5. Who should participate?
6. What should the renewable resource target requirement be over time?
7. What does Staff propose concerning energy efficiency?
8. Is Staff proposing any incentives?
9. If there are going to be cost caps, how will they work?
10. What qualification requirements will there be?
11. What compliance reporting requirements will there be?
12. What other characteristics should be incorporated in the RPS requirement?
13. What process will be used to acquire renewable resources by the utilities?
14. What cost recovery process will be implemented?
15. What should the plan be named?
16. What additional steps are required?

Staff appreciates the detailed comments submitted by the parties in response to the Preliminary Task Force Report. Staff reviewed all of these comments in detail and gave them due consideration. There were significant differences of opinion between the parties over such questions as whether the RPS should be mandatory or voluntary, which resources should be included in a Louisiana RPS, and the assumptions used by Staff in its

analyses. The following section addresses certain of these comments by the parties. For the Commission's information, Staff has included a summary of the parties' comments in Appendix I.

II. Results of Staff's Analysis and General Issues Addressed in Parties' January 15, 2009 Comments

The central issue in this proceeding concerns whether or not an RPS is appropriate for Louisiana and, if so, what kind of RPS policies should be implemented. Prior to answering this question, Staff first conducted an evaluation to determine the opportunity for developing additional renewable resources in Louisiana, and the cost of those resources. The first step was to identify the renewable resources that currently exist in Louisiana. Staff's report included the following table of renewable energy generation in Louisiana based on 2007 data.

Renewable Resource Type	Renewable Energy (GWh)
Agriculture Byproduct	77
Black Liquor	1,899
Waste Wood	999
Sidney Murray Hydro	1,000
	3,976

Entergy noted that Staff's 2007 data was selected from a period prior to when several large facilities announced they were shuttering their operations. Staff has reviewed more recent data, preliminary EIA 923 data for 2009, and found that the amount of Louisiana existing renewable energy was indeed lower by about 850 GWh in 2009 compared to 2007.² Staff acknowledges that this will cause the cost of Staff's renewable resource portfolio in its economic evaluation to increase. However, 850 GWh out of a total portfolio requirement of over 16,000 GWh in 2020 is not significant and, therefore, Staff does not believe this will change any of its conclusions. Furthermore, 2009 may have been a low point for renewable

² http://www.eia.doe.gov/cneaf/electricity/page/eia906_920.html

energy production in Louisiana and the current amount of renewable energy may increase in the next few years as the economy improves.

Next, Staff developed an assessment of the potential for additional renewable resources to be constructed in Louisiana. Staff developed the following assessment of the opportunity for additional renewable resources that could possibly be built by 2020.

	Rice Hulls	Rice Hulls	Forest Residue	Mill Residue	Hydro kinetics	Solar	Offshore Wind
	Agrilelectric	New					
Potential Generation (GWh)	85	213	6,693	36	11,458	409	956
Potential Capacity (MW)	13	29	899	5	1,308	234	260

	MSW	Sugar Cane	Energy Efficiency	Biomass Co-firing	CHP
Potential Generation (GWh)	2,530	68	3,426	670	754
Potential Capacity (MW)	321	33	400	90	200

Staff reviewed this data with various industry experts, utility professionals, Professors at the LSU AgCenter, and developers of renewable resources. Staff also reviewed relevant information available in literature. Staff agrees that the assumptions concerning several of these resources are speculative, particularly concerning those resources that have never been built in the United States. However, with some of the resources some parties commented that the assumptions overestimate what they believe could possibly be developed in Louisiana, while other assumptions underestimate what they believe could possibly be developed in Louisiana. This was particularly the case with energy efficiency. Entergy commented that Staff overstated the amount of energy efficiency that could reasonably be

implemented, while both the Sierra Club and the Alliance indicated that Staff's estimates understated the amount of renewable energy.

As Staff noted in the Preliminary Task Force Report, it was beyond the scope of this project to assess the technical potential for energy efficiency in Louisiana because it will be more fully examined in Docket R-31106. Nevertheless, there is reason to believe that the amount of energy efficiency Staff selected is reasonably achievable. First, the article that Staff relied on was by the American Council for Energy Efficient Economy ("ACEEE"), which said:

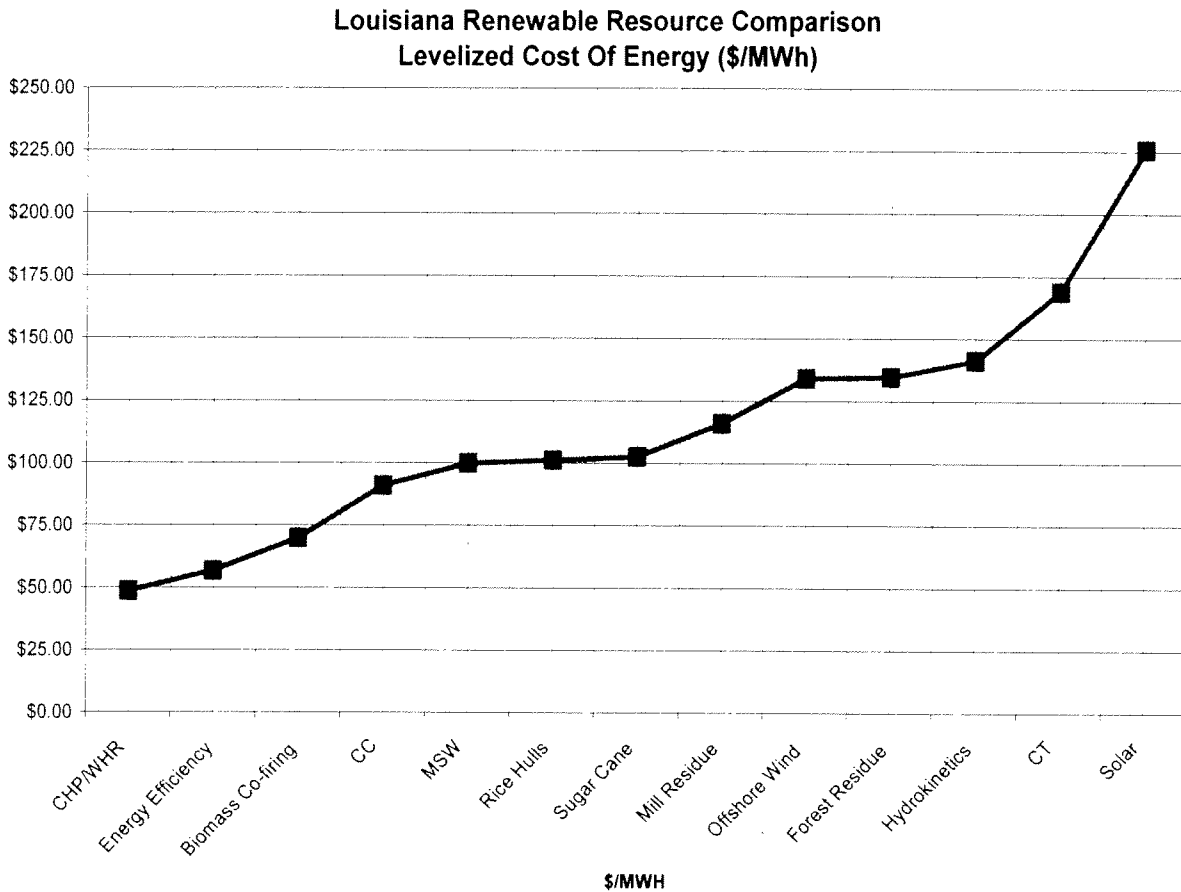
We recommend that EERS targets generally start at modest levels (e.g., savings of 0.25% of sales annually) and ramp-up over several years to savings levels currently achieved by the most successful states (e.g., 0.75% to 1.25% of sales annually). However, states with substantial current programs can ramp-up much more quickly.

Entergy's comments focus on the section of the ACEEE article that says that the most successful states currently achieve .75% to 1.25%. Entergy seems to suggest that the ACEEE only believes the most successful states should strive to achieve these targets. Staff believes the ACEEE is suggesting that it would be possible for other states to achieve these targets as well. In other words, other states such as Louisiana could achieve targets between .75% and 1.25% of annual sales. Staff's assumption was that there could be a .73% average annual energy reduction due to energy efficiency. Staff also offers another document as a reference that indicates that annual average energy reductions of between .5% per year and 2% should be achievable. The report is entitled, "Energy Efficiency as a Low Cost Resource for Achieving Carbon Emissions Reductions" and it was published in September 2009 by the EPA as part of its National Action Plan for Energy Efficiency.³

While Staff offers this support that its assumption about energy efficiency is achievable, it most likely would require an extremely committed effort to achieve this level of energy efficiency. Therefore, without further study of this issue, Staff is unwilling to support the higher amounts of energy efficiency that the Alliance and the Sierra Club have recommended.

³ http://www.epa.gov/cleanenergy/documents/ee_and_carbon.pdf

Based on the data that Staff developed and improved with various parties' assistance, Staff produced the following chart to compare the relative cost ranking of the various renewable resource technologies that could be developed in Louisiana. Staff developed the levelized cost of energy for each of the renewable resources incorporating both operating costs and capital costs in the levelized cost.



This chart suggests that CHP (assuming incremental additions at existing processes), energy efficiency, and biomass co-firing are the least expensive resource options. Staff recommends that these options be promoted in Louisiana. The best biomass co-firing option in Louisiana is at the Rodemacher 3 unit because it is being built as a circulating fluidized bed boiler and is capable of using a wide variety of fuel types including biomass. In order to do this, some modifications will be required at the plant to accommodate fuels other than coal, but those costs, will be relatively small.

Staff developed a base case portfolio that led to the production of over 16,000 GWh of renewable energy by 2020, which would satisfy the 20% retail load requirement in the Waxman-Markey legislation. Staff compared that portfolio to a status quo case without renewable resources that would also satisfy the load requirements. In addition, two sensitivity analyses were developed. In the first, natural gas and CO2 costs were increased by 20%. This case attempted to determine how renewable resources would benefit if natural gas costs increased. The second sensitivity case assumed that it would not be possible to implement as much energy efficiency as the base case.

Of the 16,000 GWh of renewable energy produced in 2020 in accordance with the requirements of the Waxman-Markey legislation, the percentage of energy produced by each resource type in each case is as follows:

	Base Case	High Gas	Less Eng Efficiency
Qualified Hydropower (Existing)	6.2%	6.2%	6.2%
Rice Hulls Generation (Existing)	0.5%	0.5%	0.5%
Wood Biomass (Existing)	17.9%	17.9%	17.9%
Mill Residue	0.2%	0.2%	0.2%
Forest Residue	19.0%	19.0%	16.6%
Rice Hulls	1.3%	1.3%	1.3%
MSW	12.9%	12.9%	13.0%
Sugar Cane	0.4%	0.4%	0.4%
CHP	4.7%	4.7%	3.5%
Energy Effic	31.4%	31.4%	12.0%
Cofire	5.5%	5.5%	4.1%
OffShore Wind	0.0%	0.0%	5.9%
Solar Power - Utility	0.0%	0.0%	0.5%
Solar Power - Distributed	0.0%	0.0%	0.5%
Hydrokinetic	0.0%	0.0%	16.3%

The results of the analyses are presented in the following table:

	Base Renewable Portfolio	High Gas Sensitivity	Less Energy Efficiency Sensitivity
NPV (\$millions)	-\$148.8	\$217.7 savings	-\$890.6
2020 Residential customer impact per year	\$5.21	\$22.34 savings	\$54.85
2020 Industrial customer impact per year	\$142,566	\$611,478 savings	\$1,501,609

These results indicate that if the base case is reasonable (i.e. fuel cost assumptions, CO2 costs, renewable resource fuel and capital assumptions are realistic) then the impact of the RPS will cause costs to increase, although the increase does not appear to be excessive, and the cost impact on industrial customers could possibly be mitigated by allocating costs to the classes in a different way than a kWh allocation. The high gas scenario indicates that there will be cost savings by relying on renewable energy resources. The Less Energy Efficiency case indicates that energy efficiency costs represents an important driver of the results, and if it were not possible to implement as much energy efficiency as the Base Case suggests, then the cost of the RPS would increase substantially.

Both the Alliance and the Sierra Club strongly argue in favor of a mandatory RPS and both are supportive of the use of a feed-in-tariff.⁴ The position of these parties is that even if the costs of a mandatory RPS are higher than the status quo, a mandatory RPS should still be implemented for all the benefits that a mandatory RPS can provide such as energy independence, CO2 mitigation, air quality improvements, energy diversity, energy security, jobs creation, etc. Furthermore, they believe that ultimately the costs of renewable resources will decline with further development of the resources, and therefore, an RPS may not ultimately be more expensive than the status quo. While Agrilectric may also favor a mandatory RPS, it was not explicitly addressed in their comments, and Staff believes that the goals discussed in Agrilectric's comments can be met with either a goals-based RPS or a mandatory RPS.

Based on Staff's analysis and having considered the comments of all the parties, Staff does not believe that a mandatory RPS is in the public interest at this time. Therefore, Staff recommends that the Commission should implement a goals-based RPS. Under a goals-based RPS, the Commission would encourage utilities to implement cost-effective renewable resources and energy efficiency, but would not impose penalties if the targets could not be met. Furthermore, cost caps should be implemented to ensure that ratepayers are not charged for overly expensive renewable resources and energy efficiency that exceed the caps.

⁴ A feed-in-tariff is a predetermined tariff that developers of renewable resources will be paid should they decided to construct new resources. The tariff would have to be high enough to attract developers to build, but not too high that customers would potentially overpay for the resources.

The remainder of this report discusses Staff's proposal for the implementation of a goals-based RPS.

III. STAFF'S RPS RECOMMENDATIONS

The following list of questions was included in the Preliminary Task Force Report. Additional questions have also been included to address additional issues concerning Staff's RPS proposal. Following each question is Staff's response and recommendation to the Commission.

1. Should a Renewable Portfolio Standard ("RPS") be adopted?

Yes. Staff recommends that the LPSC implement a goals-based RPS plan. There are six states that have goals-based plans including Virginia, West Virginia, Vermont, North Dakota, South Dakota, and Utah. Staff's proposal combines features found in these and other states' plans.

2. What desirable results should the RPS attempt to achieve?

Staff recommends that the RPS should attempt to achieve the following results:

- a. Provide additional resources that result in reliable and economical long-term electric supply;
- b. Diversify the resources used to reliably meet the energy needs of consumers in Louisiana and therefore, attempt to minimize fuel price volatility;
- c. Provide greater energy security through the use of indigenous energy resources available within the State;
- d. Encourage additional private investment made in renewable energy and energy efficiency;
- e. Improve air quality in Louisiana;
- f. Develop additional in-state renewable resources, which could then lead to additional job creation in Louisiana; and,
- g. Avoid job losses that might occur as a result of commercial and industrial customers experiencing higher electricity rates.

3. What renewable resources should be included?

Staff believes the following resources should be included in an RPS in Louisiana:

- Advanced coal technologies, such as Integrated Gasification Combined Cycle (“IGCC”), or Coal with Carbon Capture and Sequestration (“CCS”)
- Biologically derived methane gas (including landfill gas)
- Biomass energy
- Black Liquor
- Coal mine methane
- Combined Heat and Power (“CHP”)
- Demand-side management
- Distributed generation systems
- Energy Efficiency
- Fuel cells
- Generation of electricity utilizing by-products of the pulping process and wood
- Geothermal energy
- Municipal solid waste (“MSW”)
- Nuclear power⁵
- Ocean thermal, wave, tidal, hydrokinetic
- Qualified hydropower
- Solar photovoltaic energy
- Solar thermal
- Waste Heat Recovery (“WHR”)
- Waste-to-energy
- Wind power

Advance coal technologies, landfill gas, coal mine methane, CHP, demand-side management, energy efficiency, fuel cells, municipal solid waste, nuclear, WHR, and waste-to-energy are not uniformly considered renewable energy by regulators. Nevertheless, these resources do have desirable characteristics that Staff recommends should be promoted in Louisiana. For example, while CHP might rely on natural gas as the fuel source, it produces electricity and steam using less energy than would otherwise be required to produce the same amount of steam and electricity if two separate processes were required. Furthermore, Louisiana should avail itself of this abundant resource. According to comments submitted January 19, 2010 by the US Department of Energy Gulf Coast Clean Energy Application Center, “...estimates

⁵ Nuclear power should be treated like it is in the Waxman-Markey legislation, which reduces the load requirement by the amount of new nuclear energy produced.

place the potential for additional CHP in Louisiana at 4,000 – 5,000 MW...”⁶ Including CHP in the RPS will provide an incentive to increase the amount of CHP in Louisiana.

4. Should renewable energy credits (“REC”) be used?

Yes. For every MWH of renewable energy that is produced from a renewable resource that qualifies to participate in the RPS programs, one renewable energy credit should be created and assigned to the owner of the resource. RECs can be bought and sold to electric retail suppliers. Some resources can receive more or less credit depending on the emphasis that the Commission wishes to place on different types of resources that are included in the RPS program. RECs should be limited to renewable resources that are located either in Louisiana or in a bordering state.

5. Who should participate?

All jurisdictional electric utilities would be expected to meet the goals of the RPS program. However, if some of the Louisiana Rural Electric Cooperative Utilities (“cooperatives”) have all-requirements purchase power contracts that cannot be altered, and do not permit them to obtain alternative supplies (such as renewable resources), then those cooperatives should be exempt from meeting the goals of the RPS. In the event that a cooperative utility purchases its supply through an all-requirements contract, Staff believes that it would be appropriate to exempt the cooperative, unless the all-requirements contract contains a provision for substituting renewable resources as part of the supply portfolio. In that event, the utility would be fully subject to meeting the goals of the RPS. If the cooperative’s all-requirements contract does not permit it to acquire renewable resources, the cooperative would be expected to meet the RPS program goals in any future purchased power contracts that the cooperative enters into upon expiration of its current contracts.

In the Preliminary Task Force Report, Staff suggested it would consider an exemption for small Cooperatives if the RPS requirements posed an undue hardship on the

⁶ The DOE comments cite “CHP Market Status” (April 2005) by Bruce Hedman, ICF International. Available at http://www.gulfcoastcleanenergy.org/Portals/24/Hedman_GulfCoastCHPOverview.pdf

cooperative. Some parties commented that the Commission’s 300 foot rule allows for some measure of competition between retail electric service providers and because of that, all utilities should be treated equally with regard to the RPS requirement.⁷ Since Staff’s proposal is for a goals-based RPS, Staff recommends that those cooperatives that believe the RPS will pose an undue hardship on their Company should be required to file a report with the Commission supplying evidence that they would be unfairly harmed if they were to meet the goals of the RPS program. In other words, justification will need to be supplied to the Commission should the cooperative choose not to acquire renewable resources as expected by the Commission’s goals-based RPS.

6. What should the renewable resource target requirement be over time?

Staff’s report evaluated the potential for meeting the Waxman Markey requirements. However, there still appears to be substantial ongoing debate nationally over whether the Waxman-Markey requirements are reasonable. Many southern states also appear to be concerned about the reasonableness of the limits. The following compares the annual renewable resource target percentages in RPS programs of southern states to the Waxman-Markey legislation.

	Virginia	North Carolina	Waxman	Staff
2010	4			
2012	4	3	6	3
2014	4	3	9.5	3
2015	4	6	9.5	6
2016	7	6	13	6
2018	7	10	16.5	10
2020	7	10	20	10
2021	12	12.5	20	12.5
2025	15	12.5	20	12.5

Based on our analysis, the comments of the parties, and the RPS goals of the other southern states, Staff recommends that the Louisiana RPS have an annual renewable

⁷ LPSC General Order (Second Corrected) In Re: Docket No. R-27188. Modification to the July 11, 2000 General Order regarding the 300 Foot Rule, May 10, 2005.

resource target similar to North Carolina. Staff believes that it is reasonable to expect that these goals can be achieved in Louisiana.

7. What does Staff propose concerning energy efficiency?

Staff recommends including energy efficiency in a definition of electricity savings similar to that found in the Waxman-Markey bill, which was also discussed at some length on page 11 of the Preliminary Task Force Report. Staff recommends that electricity savings be allowed to count for up to 40% of the annual RPS goal. Electricity Savings is defined as follows:

- Energy efficiency and energy conservation measures – also known as Customer Facility Savings in the Waxman-Markey bill.
- New CHP (installed after enactment of legislation): the basis for the electricity savings calculation for CHP systems is the fact that single CHP systems that produce both electricity and heat/steam use less fuel than two separate systems would to produce the same amount of electricity and heat/steam. The amount that is counted as electricity savings is the increment of electric output of the CHP system that is attributable to the higher efficiency of the combined system.
- Existing CHP (installed before enactment of legislation) - if efficiency upgrades are made to older CHP systems, then the additional increase in output can count as electricity savings.
- Solar water heating and solar light pipe technology
- Fuel cell savings - Electricity saved by a fuel cell installed after enactment or through improvement to existing fuel cell after enactment
- Reductions in distribution system losses

8. Is Staff proposing any incentives?

Yes, as follows:

- a. Assuming the Commission establishes this standard, Staff recommends that the Commission state that its overriding goal is to encourage the development of renewable energy and energy efficiency resources in Louisiana. It should

also state that it would attempt to remove regulatory barriers that might slow or otherwise limit the opportunity to acquire renewable resources and implement energy efficiency resources. Finally, the Commission should state that it will still be concerned about costs, and therefore, it should also implement cost caps.

- b. Staff recommends that the utilities receive timely cost recovery based on the opportunity to recover costs outside any formula rate plan via a rider mechanism;
- c. Staff believes that utilities will benefit from increased goodwill derived from the recognition by utility peers and customers for having acquired renewable resources and implemented energy efficiency programs;

Staff is not proposing any special incentives, such as an increased return on equity, for qualifying RPS resources.

9. How will the cost caps work?

The cost caps can serve to limit the cost that an RPS will impose. Staff recommends that the net annual levelized revenue requirement of the utility's renewable resource plan should not exceed one percent (1%) of the total annual prior year's revenue of the utility. With this approach, on average, customer bills would not increase by more than one percent (1%) as a result of the RPS. The net annual levelized revenue requirement of the renewable resources is defined as the annual revenue requirement of the renewable resource portfolio less the annual revenue requirement of the utility's least cost plan without the renewable resources. In the case of Entergy Louisiana, LLC, based on 2008 revenues, this would imply a cost cap of \$30 million per year. In other words, the additional cost of the resource plan with the renewable resources could not exceed the cost of the resource plan without the renewable resources by more than \$30 million. Additional details regarding the cost cap will be worked out in the implementation phase of the RPS.

10. What qualification requirements will there be?

Owners of renewable resources will have to register with the Commission in order to be considered eligible. Certain metering requirements may be necessary, particularly for renewable resource generation located at industrial sites that serve the electrical requirements of the industrial facility. This is typically known as behind-the-fence generation. The qualification registration requirements will be developed as part of the implementation phase of the RPS.

11. What compliance reporting requirements will there be?

On an annual basis, utilities will be required to submit compliance reports that contain the amounts and types of renewable resources that the utilities relied on during the year, and the cost of those renewable resources. The utilities will also have to present evidence that the costs that they are including in their rider do not exceed the cost caps for the RPS as defined in item 9 above. Additional details concerning the compliance reporting will be developed as part of the implementation phase of the RPS.

12. What other characteristics should be incorporated in the RPS requirement?

- A. Resources in-state** – As a goal, renewable resources should reside in the state of Louisiana or a neighboring state that has a common border with Louisiana.
- B. Adjustment to Renewable Resource Targets** - In future years, the Commission may wish to adjust the target requirement up or down as it finds is appropriate.

13. What process will be used to acquire renewable resources by the utilities?

Staff recommends that a separate renewable resource request for proposal process be relied on by the utilities. This will essentially follow the Commission's Market Based Mechanism ("MBM") Order, although renewable resources will typically be smaller than the capacity limit specified in the MBM order. By relying on this solicitation process, the least cost renewable resources will be identified and selected. Additional details concerning the resource acquisition process will be developed as part of the implementation phase of the RPS.

14. What cost recovery process will be implemented?

Utilities will be permitted to recover the annual costs of meeting the RPS goals based on a rider mechanism. The details of this will be developed as part of the implementation phase of the RPS.

15. What should the plan be named?

Staff recommends that the name should be the Renewable, Energy Efficiency and Alternative Energy Portfolio Standard.

16. What additional steps are required?

Staff recommends that it should continue to work with the Task Force on the next phase of the RPS to develop the fine details that are required to implement the RPS. The kinds of details that need to be worked out have been discussed above. The objective will be to carry out the mandate of the Commission which is to implement the goals-based RPS using the renewable resources discussed in Item 3 above, with the RPS target identified in Item 6 above. Once the remaining details have been addressed, Staff will provide the final details to the Commission for a final vote.

Appendix I
SUMMARY OF COMMENTS ON
LPSC STAFF PRELIMINARY TASK FORCE REPORT
DOCKET NO. R-28271 SUBDOCKET B

COMMENTS OF ENTERGY GULF STATES AND ENTERGY LOUISIANA

- I. A mandatory Louisiana Renewal Portfolio Standard (“RPS”) would negatively affect customers (pg. 3)
- A high level of uncertainty exists with respect to forecasts and assumptions
 - The LPSC should consider a goals-based program
- II. Specific comments by the Companies
- A. Potential Federal Legislation
- An Alternative Compliance Payment (“ACP”) in the context of proposed Federal legislation should not be viewed so positively (pg. 5). Companies note issues relating to transfer of wealth from one region of the country to another.
- B. Biomass
- The 400 MW of biomass assumed by Staff may not be achievable. Two possible limiting factors are transmission availability and fuel competition. (pg. 6)
 - Municipal solid waste (“MSW”) waste assumption used by Staff is “frankly unrealistic”. (pg. 9) The technology has not been deployed at any scale in the U.S.
 - Companies recommend that Staff re-evaluate the MSW using different scenarios for fuel supply cost and consider other MSW options such as incineration (pg.10)
- C. Combined Heat and Power (“CHP”) and Waste Heat Recovery (“WHR”)
- Not clear how CHP and WHR projects are to be counted towards a utility’s compliance with an RPS. Staff should clarify this issue. (pg. 11).
 - Staff should clarify how treating CHP within energy efficiency is different from an RPS. (pg. 11)

- Staff may need to revisit assumptions that drive the calculation of levelized costs. The levelized cost stated in the report is below the levelized cost of a gas-fired combined cycle unit. (pg. 11)

D. Energy Efficiency

- Companies agree in principle that energy efficiency is a viable and potentially attractive option.
- However, Staff's energy efficiency reductions of 6.5% of total retail sales by 2020 is "completely unrealistic." (pg. 13)
- Staff "grossly underestimates" the net present value cost of an RPS because Staff assumes that energy efficiency costs less than the avoided energy cost used in the non-RPS scenario. (pg. 14)
- Staff should re-model the base line resource portfolio using significantly lower energy efficiency savings. (pg. 15)

III. Economic Evaluation

- It is reasonable to include Vidalia as a qualifying project, though the definition of a qualifying project differs in the Senate version of legislation.
- It is not appropriate at this time for Staff to assume that ELL would receive the benefit of any RECs associated with Vidalia. Entergy requests that Staff work with ELL to initiate discussions with Vidalia to resolve planning questions.
- Entergy cautions that its and the Commission's experience with Vidalia shows that if forecasted future energy prices turn out to be wrong, costs could be much higher for customers. (pp. 16 and 17)
- On the table on page 48, Staff should review the 2007 data and make adjustments for any paper mills and/or other forestry-related facilities that have closed or are slated to close in 2010 or beyond. (pg. 17)
- On page 50, potential generation and potential capacity for Offshore Wind appear to be incorrect. (pg. 17)
- On page 51, energy efficiency assumptions are different from values quoted elsewhere in the report. (pg. 17)
- On page 54, Entergy urges Staff to remove ENOI because ENOI is not subject to the LPSC's jurisdiction.
- Staff should include an explicit CT-related capacity cost in the table on page 58 for the portion of energy that is associated with avoided cost. (pg. 18)
- Entergy suggests that Staff re-model the base case portfolio using \$25/MWh for the cost of RECs. Staff provided no support for its estimated cost of \$15/MWh on pages 58-59 (pg. 18).
- In its third scenario on page 62, Staff did not discuss why it substituted for expensive resources in lieu of ACP and/or purchases of RECs from other states. (pp. 18 – 19)

IV. Policy Alternatives

- A. Companies oppose a mandatory RPS, but do not favor waiting for Federal Action.
- B. Entergy favors a goals-based “clean-energy” policy featuring appropriate incentives (pg. 19)
- C. Electric coops should not be exempted from any mandatory LPSC RPS plan. (pg. 20)
- D. Staff’s proposed Residential Bill Cap appears to subject utilities to significant future financial risk and would constitute an unconstitutional taking of utility property and a violation of due process. (pg. 21)
- E. Staff’s last statement in Paragraph E is inconsistent with Staff’s position stated in Paragraph H. (pg. 21)
- F. Staff’s proposed ACP has multiple complex policy issues (pp. 21 – 22)
 - It is not clear that La. Law allows utilities to pay the Commission directly via the proposed ACP
 - How would renewable projects and investment opportunities be vetted?
 - Note Catch-22 situation described on page 22.
- G. No reason to include a separate penalty provision (pg. 22)
- H. It is not clear to the Companies why net metering customers should be allowed to receive RECs. (pg. 22) Utilities should be able to count the energy generated by the net metered equipment towards compliance with an RPS.
- I. Entergy agrees that energy efficiency should be included as part of an RPS, but that Staff should reconsider its energy efficiency assumptions as mentioned previously. (pg. 23)
- J. Entergy suggests “Voluntary Clean Energy Program” as a possible name for the program.

V. Proposal for a Voluntary Clean Energy Program

Entergy presents its program beginning on page 25 of its comments.

COMMENTS OF CLECO POWER LLC

I. General Comments

- A. Cleco supports establishing an incentive-based goal, rather than a penalty-based requirement.
- B. Any standard for RPS adopted by the Commission should include periodic reviews to ensure the most accurate data is included.
- C. The additional cost of an RPS is important considering that Louisiana ranks 49th out of 50 states in median household income and poverty level percentage.
- D. Many of Staff's assumptions in the report are based on little, if any, empirical data. The technology risk is increased, as well as risk of underestimating costs and overestimating benefits.

II. Specific Comments

- A. Should an RPS be implemented?
 - An RPS goal that includes incentives is a more effective option
 - Preference should be given to Louisiana resources and inclusion of resources with proven local commercial viability are critical
 - States with readily available low cost renewable resources and high retail electric rates are most likely to have an RPS in place
 - The best practice in one state may not transfer to Louisiana
- B. What should the RPS attempt to establish?
 - Two goals recommended by Staff (La. job creation and avoiding job losses) must be considered in tandem
- C. What renewable resources should be included?
 - Utility scale projects should be included in an RPS, such as repowering and other improvements
 - Commission should consider including a potential "alternative energy goal" that allows more state-specific resources to be pursued
- D. What should the renewable resource target requirement be over time?

- The Commission should consider the impact on retail energy rates, the availability of qualifying resources when setting a renewable resource goal.

E. What characteristics should be incorporated in the RPS requirement?

- Cleco is concerned about the exemptions proposed by Staff on pages 71-72 of the Report.
- On page 72, Cleco requests that the Commission define “undue hardship”
- All utilities should be subject to the RPS if the Commission adopts one.
- Cleco recommends that the Commission consider Staff’s proposed ACP as an option before requiring utilities to purchase out-of-state RECs. (pg. 10)
- Cleco requests that Staff clarify the purpose of the 2-4 year limitation on banking RECs
- Referring to page 74, Cleco requests that Staff clarify “reasonably priced renewable resources” as this should be clearly defined
- Cleco believes that Staff’s ACP eliminates the need for any penalty requirement
- Cleco is concerned about the “burden placed on utilities” from long-term energy supply contracts, including FITs, for renewable energy (pg. 11)
- Staff’s proposed periodic review is not warranted. Annual reporting by utilities would be less burdensome
- Cleco requests certain clarifications regarding Net Metering on page 74. Staff should more fully discuss the “deficiencies in existing rules.” Staff should also clarify whether the language in the paragraph pertains to a limited number of projects or developers.
- Energy efficiency “requires more thought and consideration than was provided in this proceeding.”

F. What should the RPS be named?

Name should reflect the characteristics of the program.

COMMENTS OF SWEPCO

I. General Comments

- A. If the Commission decides that a technology mandate is in the best interest of ratepayers, then it should consider adding a reasonable voluntary technology deployment schedule in the Clean Energy Technology Deployment Program proposed by SWEPCO with incentives similar to Virginia.
- B. In SWEPCO's view economy wide CO2 limits could have a far greater impact on Louisiana than the Renewable Energy Standards ("RES").
- C. SWEPCO proposes a Louisiana Clean Energy Technology Deployment Program without mandated targets and timetables. The four major points to the program are:
 - Support a federal CO2 cap and trade program that includes greenhouse gas offsets from Louisiana's forests and agriculture
 - Build on the 2009 passage of HB661 Carbon Capture and Storage title
 - Accelerate the deployment of all low and zero emitting CO2 technologies
 - Support expanding the state's transmission grid in the Southwest Power Pool

II. Specific Comments

- A. Should an RPS be implemented?
 - SWEPCO recommends the Commission focus on reducing CO2 emission through incentives for new technologies. SWEPCO cites West Virginia and Ohio as states that have encouraged low and zero emitting CO2 technologies
 - SWEPCO does not support mandatory RPS, but if the Commission imposes one, then SWEPCO recommends that utilities be incented to participate voluntarily as in Virginia and be assigned flexible targets for renewable resources
 - SWEPCO opposes fixed RPS standards for renewables
- B. What should the RPS attempt to accomplish?
 - The six goals in the Staff's December 2009 should be considered desirable outcomes, not goals that must be achieved
 - Renewables could be exempted from the existing Market Based Mechanism

- If MBM is applied to renewables, it must provide for guaranteed cost recovery for the developer
 - The prudence review should be moved to the beginning of the process
 - Prudence standards should be redefined as applied to renewables
- C. What Renewable Resources Should be Included?
- List of resources on page 68 of the report is a good start and should be included
 - List should be expanded to other technologies that are low or zero emitting. SWEPCO offered a definition of such technologies on page 5 of its comments
 - A list of alternative energy resources as defined by SWEPCO is included on pages 5 and 6 of the Company's comments and include "advanced coal technologies."
- D. What Should the Renewable Resource Target Requirement be Over Time?
- SWEPCO does not endorse an RPS approach as the most efficient means of promoting renewables (pg. 7)
 - Does not advocate a fixed percentage
 - Utilities should not be required to obtain new renewable resources when they have no need
- E. What Characteristics Should be Incorporated in the RPS Requirement?
- Utilities should have flexibility to secure renewable resources generated inside and outside the state at any time
 - Placing artificial time constraints on renewables will likely increase costs to consumers
 - Each electric utility should have flexibility to determine the best method for providing reliable power in the most economical manner
 - The LPSC should include the use of carbon offset projects to receive credits to meet the Federal greenhouse gas offsets
 - There should be reciprocity among states with technology mandates
 - The Commission should consider special incentives and credits for technologies developed in La., for wind technology, and carbon capture
 - If the Commission proceeds with an RPS, coops and investor owned utilities should have the same requirements
 - RECs are the vehicle to administer the transfer of renewable energy into the state

- The Commission should issue proposed credit criteria as part of draft regulations with an opportunity for public comment
- Penalties are not necessary
- Commission should allow and encourage trading of renewable credits from other states

F. What should the RPS be named?

Louisiana Clean Energy Technology Deployment Program or Louisiana Energy Alternatives Portfolio Standard

COMMENTS OF THE SIERRA CLUB

- I. Summary of Conclusions
 - A. Supports implementation of RPS, including a mandate for reducing electricity use through investments in energy efficiency.
- II. General Comments
 - A. In the context of ACESA, 40% of the CERES requirement should be met through energy efficiency
 - B. Reducing energy use by 1% - 2% below the base line forecast is feasible and cost effective (pg. 3)
 - C. Supports beginning to meet the ACESA by using 40% of the target, or 8% of projected load in 2020 with energy efficiency
 - D. Cost of energy efficiency
 - Disagrees with Staff estimate of cost of energy saved of 4.6 cents/kWh in 2013. States that the ACEEE report suggests a total cost closer to 3.5 cents/kWh and recommends this value for use in the analysis
 - Staff should justify its use of a higher number
 - E. State should ensure that solar power is included in RPS
 - F. Biomass
 - Life cycle accounting should be implemented to ensure that biomass fired projects are credited only with read avoided cost emissions. Emissions associated with production of biomass should be counted against credited benefits. (pg. 4)
 - Standards for sustainability should be adopted
 - G. Full lifecycle accounting should also be used for biomass co-firing. (pg. 4)
 - Cost assumptions for co-firing in Staff's analysis do not seem realistic. Biomass co-firing should not be included in the list of resources to be considered under a La. RPS (pg. 5)
 - H. Supports including hydrokinetics and offshore wind in the RPS, but should not be included for purposes of policy analysis at this time

III. Alternative Portfolio

A. Sierra Club developed an Alternative Portfolio that has different assumptions for:

- Energy efficiency – 40% of total portfolio resources
- Solar energy
- Offshore wind and hydrokinetics
- Forest residue
- Municipal solid waste
- Sugar cane bagasse

Sierra Club's assumed portfolio is shown on Figure 3 of its comments.

B. Alternative portfolio shows NPV cost of \$3.64 billion, nearly the same as Staff portfolio (uses Staff assumptions for resource cost and discount rate) (pg. 6)

- Comments note, however, that Sierra Club believes that Staff overstated the cost of energy efficiency and that the cost should be 3.5 cents/kWh. This would make Sierra Club's portfolio 2.4% less expensive than Staff's portfolio (pg. 7)

IV. Policy Alternatives

A. Should an RPS be Implemented?

- Mandatory RPS should be implemented

B. What Should the RPS Attempt to Accomplish?

- Provide economic opportunities
- Avoid future congestion and expenditures on distribution system
- Reduce La. exposure to higher fuel and emissions cost and fuel price volatility
- Facilitate compliance with future federal greenhouse gas emissions regulations

C. What resources should be included?

- Any resource should be included as long as its greenhouse gas mitigation benefits are properly accounted for, other environmental concerns are addressed, and that it is sustainable.

D. Other

- The RPS targets shown on pg. 70 of the Staff report are aggressive but realistic guidelines

- Supports an FIT
- There should be as few exceptions to the RPS requirements as possible
- The use of ACP and RECs is important if the levels are properly set
- The energy efficiency portion of utilities' clean energy portfolio should not be subject to RECs

COMMENTS OF THE LOUISIANA ENERGY USERS GROUP (LEUG)

- I. Should a Renewable Portfolio Standard (“RPS”) be implemented?
 - A. The LPSC should not adopt a RPS required the purchase of non-competitively priced renewable power absent a federal mandate.
 - B. LEUG does not object to an energy standard designed to focus on Louisiana-specific needs and assets (called Alternative Energy Standard).
 - C. AES should be subject to modification by the LPSC based on future changes
 - D. LEUG strongly opposes any incentive to regulated utilities to meet the AES. If a utility fails to meet the standard, then utility shareholders should pay any penalty or federally mandated ACP.
- II. What should a Louisiana RPS attempt to accomplish?
 - A. LPSC should establish goals, then adopt program specifics.
 - B. LEUG’s goals are listed on page 4 of its comments.
 - C. LEUG believes that any subsidies of resources should be made at the federal level and not by the LPSC.
- III. What renewable resources should be included?
 - A. LEUG supports a broad definition of AER and does not object to the resources listed in Staff’s report.
 - B. LEUG is opposed to LPSC establishing emission limits on biomass. Such limits are not within the Commission’s role.
- IV. What should the Renewable Resource Target be over time?
 - A. AES should be set at levels that can reasonably be achieved over time without undue hardship on the state. LPSC should not establish targets at this time that rely on energy efficiency measures. LEUG supports inclusion of CHP.
- V. What characteristics should be incorporated in the RPS requirement?
 - A. Agrees with Staff that AER should reside in the state or in a neighboring state. LPSC should retain authority to adjust any AES up or down.

- B. Proposed 5 – 6 years prior to the review seems too long a period. Initial review should be performed after the first or second year after the program is in place.

VI. Additional Comments

- A. LEUG supports inclusion of CHP as an AER.

COMMENTS FROM LOUISIANA PULP AND PAPER ASSOCIATION

I. LPPA'S Position Points

- A. LPPA supports development of domestic energy resources, including renewable energy resources, but is opposed to government mandated RPS proposals.
- B. LPPA encourages the LPSC to consider reasonable targeted goals, rather than mandates for renewable energy that recognize current renewable energy production.
- C. LPPA urges consideration of policies that recognize that existing forest product companies generate energy from woody biomass.
- D. Use of an FAC to collect renewable energy costs should be avoided or mitigated.
- E. Existing on-site generation should be considered as a way to increase the use of energy developed in Louisiana.
- F. Regarding woody biomass, LPPA supports (1) public policy that encourages regional fiber supply and (2) accurate fiber inventory data to assess current and future fiber supply.

COMMENTS FROM THE LOUISIANA PROPANE GAS ASSN.

- I. The LPGA is concerned about cost estimates for a system depending on energy efficiency
- II. Liquefied Propane Gas should be considered in a Louisiana RPS
- III. LPSC should consider implementing RPS goals, not mandates.

COMMENTS OF THE ALLIANCE FOR AFFORDABLE ENERGY

- I. Staff should consider a carve-out for photovoltaic/distributed generation, say 10%
- II. Biomass co-firing
 - A. Only the portion of power generated by renewable fuel should be counted in a RPS. Fossil fuel generation should not be included.
- III. Energy efficiency
 - A. Energy efficiency should be included in a La. RPS at the level in the Waxman-Markey legislation of 40%. Staff report should increase to this level from its assumed 31.4%.
- IV. Policy considerations
 - A. LSPC should adopt a mandatory RPS and not wait for a federal RPS or adopt goals.
 - B. LPSC should adopt a FIT to drive renewable power development.
 - C. Nuclear power should not be included in an RPS.
 - D. In-state resources should receive priority in an RPS.

COMMENTS OF AGRILECTRIC POWER PARTNERS

- I. Long-term contracts for committed renewable capacity should include a capacity payment.
- II. Biomass is carbon-negative, providing additional Louisiana benefits
- III. LPSC should clarify that all environmental attributes are the property of the renewable generator unless otherwise stated in the purchase power agreement with the utility
- IV. Agrilectric cites several additional goals for an RPS on page 5 of its comments, which are in addition to Staff's goals.

COMMENTS OF THE U.S. DEPT. OF ENERGY GULF COAST CLEAN ENERGY APPLICATION CENTER (“GCCEAC”)

- I. The GGCEAC indicated that the US EPA is in the process of creating a registry of recoverable waste energy sources, which will allow a better qualification of industrial waste heat recovery potential in Louisiana.
- II. The GGCEAC notes that the opportunity for CHP in Louisiana is 4,000 – 5,000 MW in the next decade, which may require incentives such as an RPS.
- III. The GGCEAC suggests that the program could be called the “Resource Portfolio Standard” or “RPS”.
- IV. The GGCEAC indicated that the Louisiana RPS should have an incentive structure that promotes a variety of technologies, especially those with limited market share. It notes that in Texas, development of renewable resources has almost exclusively been limited to wind resources. To address this, the Texas PUC recently opened a rulemaking to create a 500 MW “carve out” for non-wind renewable energy technologies. The proposal recommends creating three tiers with independent goals and incentive structures for each tier.
- V. Waste heat recovery and gas-fired CHP could be used to cover the backup energy requirements that are necessary to support intermittent resources such as wind and solar generation. In other words, waste heat recovery and CHP generators can be called upon quickly and can provide generation on demand when needed, particularly when it is cloudy or if the wind stop blowing and additional generation is needed.